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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: ~~Adri~~ Adri et al.

Title: MULTICHANNEL ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED  
RECEIVERS WITH ANTENNA SELECTION AND MAXIMUM-RATIO COMBINING AND  
ASSOCIATED METHODS

Docket No.: 884.B53US1

Serial No.: 10/749,903

Filed: December 29, 2003

Due Date: N/A

Examiner: Unknown

Group Art Unit: 2661

**MS Amendment**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

- ☒ A return postcard.
- ☒ A Supplemental Information Disclosure Statement (2 pgs.), Form 1449 (2 pgs.), and copies of 18 cited documents, including the International Search Report for corresponding PCT Application No. PCT/US2004/043056 (4 pgs.).

If not provided for in a separate paper filed herewith, Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

Customer Number 21186

By: Ann M. McCrackin  
Atty: Ann M. McCrackin  
Reg. No. 42,858

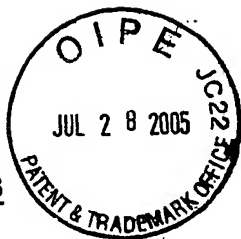
CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 26<sup>th</sup> day of July, 2005.

JAMES KANYUSIK  
Name

[Signature]  
Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

(GENERAL)



S/N 10/749,903

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	Ali S Sadri et al.	Examiner:	Unknown
Serial No.:	10/749,903	Group Art Unit:	2661
Filed:	December 29, 2003	Docket:	884.B53US1
Title:	MULTICHANNEL ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED RECEIVERS WITH ANTENNA SELECTION AND MAXIMUM-RATIO COMBINING AND ASSOCIATED METHODS		
Assignee:	Intel Corporation	Customer Number:	21186

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**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicant respectfully requests that this Supplemental Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicant requests that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicant with the next official communication.

Several of the documents listed on the attached 1449, were discovered as a result of a Search Report in Applicant's corresponding foreign patent application. Enclosed for the Examiner's information is a copy of the cited documents and the Search Report.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Supplemental Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Supplemental Information Disclosure Statement considered.

Customer No.: 21186

Dkt: 884.B53US1 (INTEL)

Serial No :10/749,903

Filing Date: December 29, 2003

Title: MULTICHANNEL ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED RECEIVERS WITH ANTENNA SELECTION AND MAXIMUM-RATIO COMBINING AND ASSOCIATED METHODS

Assignee: Intel Corporation

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Pursuant to 37 C.F.R. 1.98(a)(2), Applicant believes that copies of cited U.S. Patents and Published Applications are no longer required to be provided to the Office. Notification of this change was provided in the United States Patent and Trademark Office OG Notices dated October 12, 2004. Thus, Applicant has not included copies of any US Patents or Published Applications cited with this submission. Should the Office require copies to be provided, Applicant respectfully requests that notice of such requirement be directed to Applicant's below-signed representative. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

The Examiner is invited to contact the Applicant's Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

ALI S SADRI ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
Attorneys for Intel Corporation  
P.O. Box 2938  
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Date

July 26, 2005

By

Ann M. McCrackin

Ann M. McCrackin

Reg. No. 42,858

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 26th day of July, 2005.

Name

JAMES KANYUSIK

Signature

James Kanyusik

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Use as many sheets as necessary)	Complete if Known	
	Application Number	10/749,903
	Filing Date	December 29, 2003
	First Named Inventor	Sadri, Ali
	Group Art Unit	2661
	Examiner Name	Unknown
Sheet 1 of 2	Attorney Docket No: 884.B53US1	



US PATENT DOCUMENTS				
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date If Appropriate
	US-2003/0043732 A1	03/06/2003	Walton, J. R., et al.	06/26/2001
	US-2004/0258174 A1	12/23/2004	Shao, L. , et al.	02/26/2004
	US-2005/0031047 A1	02/10/2005	Maltsev, A. A., et al.	12/16/2003

FOREIGN PATENT DOCUMENTS				
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	T <sup>2</sup>
	EP-1411647A2	04/21/2004	Liu, J.-T. , et al.	
	GB-2384651	07/30/2003	Matsuoka, H. , et al.	
	WO-03/047198A2	06/05/2003	Kadous, T. , et al.	
	WO-2004/047354A1	06/03/2004	Jorswieck, E.	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
		"International Search Report for corresponding PCT Application No. PCT/US2004/043056", (Attorney Docket No. 884.B53WO1), (April 1, 2005), 4 pgs.		
		"Supplement to IEEE Standard for Information Technology- Telecommunications and Information Exchange Between Systems- Local and Metropolitan Area Networks - Specific Requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY)", IEEE STD 802.11A-1999, (Dec. 30, 1999), 90 pgs.		
		BANGERTER, B., et al., "High-Throughput Wireless LAN Air Interface", Intel Technology Journal, 7 (3), <a href="http://developer.intel.com/technology/itj/index.htm">http://developer.intel.com/technology/itj/index.htm</a> , August 19, 2003), 47-57		
		CHOI, BYOUNGJO , et al., "Optimum Mode-Switching-Assisted Constant-Power Single- and Multicarrier Adaptive Modulation", IEEE Transactions on Vehicular Technology, 52(3), (May, 2003), 536-560		
		DAMMANN, A. , et al., "Transmit/Receive - Antenna - Diversity Techniques For OFDM Systems", European Transactions on Telecommunications, 13 (5), (September, 2002), 531-538		
		FUJINO, Y., et al., "Transmitter With Antenna Array For MC-CDMA Forward Link", IEEE Antennas and Propagation Society International Symposium, (June 22, 2003), 847-850		

EXAMINER

DATE CONSIDERED

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Use as many sheets as necessary)	Complete if Known	
	Application Number	10/749,903
	Filing Date	December 29, 2003
	First Named Inventor	Sadri, Ali
	Group Art Unit	2661
	Examiner Name	Unknown
Sheet 2 of 2	Attorney Docket No: 884.B53US1	

## OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		HUTTER, A. A., et al., "Effects of Fading Correlation on Multiple Antenna Reception Mobile OFDM Systems", <u>IEEE Vehicular Technology Conference</u> , (September 24, 2000), 2744-2749	
		SANDHU, S., et al., "Analog Combining of Multiple Receive Antennas With OFDM", <u>IEEE International Conference on Communications</u> , (May 11, 2003), 3428-3432	
		SIMOENS, S., et al., "Optimum Performance of Link Adaptation in HIPERLAN/2 Networks", <u>VTC 2001 Spring. IEEE VTS 53rd Vehicular Technology Conference</u> , 2001, Volume 2 of 4, (May 6-9, 2001), 1129-1133	
		SLIMANE, B. S., "A Low Complexity Antenna Diversity Receiver For OFDM Based Systems", <u>IEEE International Conference on Communications</u> , (June 6, 2001), 1147-1151	
		TIAN, Q., et al., "The Performance of Multi-Carrier CDMA with Base Station Antenna Arrays in Fading Channels", <u>Vehicular Technology Conference</u> , (May 15, 2000), 1498-1502	
		YIH, C.-H., et al., "Adaptive Modulation, Power Allocation and Control for OFDM Wireless Networks", <u>Personal, Indoor and Mobile Radio Communication</u> , 2, (2000), 809-813	
		YUAN, H., et al., "An Adaptive Array Antenna with Path Selection of OFDM Signal", <u>European Personal Mobile Communications Conference</u> , (April 22, 2003), 412-416	
		ZHEN, L., et al., "A Modified Sub-Optimum Adaptive Bit and Power Allocation Algorithm in Wideband OFDM System", <u>CCECE 2003 Canadian Conf. on Electrical and Computer Engineering</u> , Vol. 3 of 3, (May 4, 2003), 1589-1592	

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached